DRAFT SCREENING SITE INVESTIGATION
FOR THE
MERCHANTS AND EVANS COMPANY SITE
2035 WASHINGTON AVENUE
PHILADELPHIA, PENNSYLVANIA
ECKEL SITE NUMBER 311

Prepared for

U.S. Environmental Protection Agency Region 3
Hazardous Site Cleanup Division
1650 Arch Street
Philadelphia, PA 19103

Prepared by

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Work Assignment No. 048-PAPA-03ZZ
Project No. I4185.47502.0903

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1.0 INTRODUCTION

Under Remedial Action Contract (RAC) No. 68-S7-3002, Work Assignment No. 048-PAPA-03ZZ, U.S. Environmental Protection Agency (EPA) Region 3 tasked Tetra Tech, Inc. (Tt), to assist EPA Region 3 in the assessment of properties suspected to have been former lead smelter foundries. Tt subcontracted completion of this work assignment to Tetra Tech EM Inc. (Tetra Tech).

Former lead smelter sites nationwide were identified in an April 2001 article published in the American Journal of Public Health by Eckel, and others (Eckel study) (Reference [Ref.] 1). The majority of these lead smelters operated prior to 1964 and closed before the current environmental regulations were instituted. As part of the Eckel study, soil samples were collected from several of the identified former lead smelter properties. Results from the analysis of these soil samples indicated that concentrations of lead exceeded EPA's recommended screening level for lead in residential soils. The results of the Eckel study indicate that the air disposition of lead into soils from the former smelter operations may present an ongoing public health concern due to exposure of residential populations, especially children, located in the vicinity of these former lead smelters, to soils containing elevated concentrations of lead (Refs. 1, 2, and 3).

The Eckel study identified 77 properties that may have been formerly used as lead smelters within EPA Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia). EPA Region 3 is currently investigating these 77 properties. The objective of EPA's investigation of these properties is to (1) determine the potential for lead-contaminated soil to be present at the former lead smelter site or nearby properties (2) identify any populations that may be at risk to exposure to this soil, and (3) determine if soil sampling is warranted at any of these sites or nearby properties.

The following activities were completed as part of the initial screening investigation of each of these former lead smelter sites: (1) verify the former lead smelter address listed in the Eckel

study through historical Sanborn fire insurance maps, tax parcel information, and/or contacting local agencies, (2) determine if the site is listed in EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, (3) determine through census information and existing maps the number of schools, daycare centers or recreational parks that exist near the former lead smelter site, (4) determine the population residing within a 4-mile radius of the site, (5) conduct a windshield reconnaissance of the site and surrounding area to document the current land use, identify any exposed soil and verify the existence of any schools, daycare centers or parks in the immediate area, and (6) review all information acquired to determine if the collection and analysis of soil samples is warranted at the site or at any nearby property.

This report summarizes the findings of the tasks outlined above for the former lead smelter known as the Merchants and Evans Company site located at 2035 Washington Avenue, Philadelphia, Pennsylvania, 19146. Each former smelter property was given a number in Eckel's study. The Eckel study number for this site is 311 (Ref. 1).

2.0 SITE LOCATION

The former Merchants and Evans Company facility was located at 2035 Washington Avenue, Philadelphia, Pennsylvania, 19146. The geographic coordinates of the former Merchants and Evans Company facility are 39° 56' 20" north latitude and 75° 10' 46" west longitude on the Philadelphia, Pennsylvania Quadrangle, 7.5 minute series, United States Geological Survey topographic map (see Appendix A, Figure 1). The site is not currently listed in EPA's CERCLIS database (Ref. 4). An aerial photograph of the vicinity of the former lead smelter site has been included in Appendix A, Figure 2. This aerial photograph reveals the exposed soils and any identified areas of potential concern such as schools, daycare centers, or parks located within a half-mile radius of the site.

3.0 SITE OBSERVATIONS

On December 16, 2005, Tetra Tech completed a non-sampling windshield reconnaissance of the Merchants and Evans Company site and surrounding area. A photographic record of the current site conditions is included in Appendix B. Figure 3, shows the current layout of the site and surrounding area as observed during Tetra Tech's site reconnaissance. The following observations were recorded:

- The former lead smelter property is currently occupied by several companies, including Europa Fine Marble and Granite, Mattei Tire Company, Salini Bros., Ceramic Tile Showroom, and CAVA Building Supplies.

- The property is located in a mixed industrial/commercial and residential area of south Philadelphia. Directly surrounding the property, to the north is the Merchants and Evans Company building, to the northeast are residential dwellings, to the east, south and west is mixed commercial development.

- The current owner of Mattei Tire Company stated that he purchased his property from the former owner of Merchants and Evans Company. When he bought the property, Merchants and Evans Company was operating as a fire prevention and sprinkler company, but the former owner of Merchants and Evans Company told the owner of Mattei Tire Company that Merchants and Evans Company did metal work before operating as a fire prevention and sprinkler company.

- No schools, parks, or daycare facilities were identified in the immediate vicinity of the site.

- No exposed soils were observed on the former lead smelter property. The area shown on Figure 3 as a pervious surface located directly to the east of the ceramic tile showroom

property is a gravel parking lot. There appears to be very small yards associated with the residential dwellings located north of the former lead smelter.

4.0 POTENTIAL TARGETS

Potential targets identified that may be exposed to lead-contaminated soils remaining in the vicinity of the former Merchants and Evans Company site include the nearby residential population, children attending schools or daycare centers, and visitors to parks or recreational areas. The population within a 4-mile radius of the site is summarized in the table below (Ref. 5).

Population Within a Four-mile Radius of the Site

Distance Ring (miles)	Population (number of persons)
0.0 to 0.25	4,833
0.25 to 0.5	14,003
0.5 to 1.0	63,157
1.0 to 2.0	166,318
2.0 to 3.0	151,277
3.0 to 4.0	194,258

Source: U.S. Department of Commerce. Landview V Environmental Mapping Software based on the Bureau of Census 2000 Population Data. December 6, 2005.

No parks, schools or daycare centers have been identified in the area directly surrounding the site. Seven schools have been identified within one-half mile of the site, including the Landreth School, Saint De Padua School, Peirce School, Arthur School, Saint Simons School, Smith Elementary School, and Stanton School. Wharton Square Park is located to the southeast, within one-half mile of the site.

5.0 FINDINGS AND RECOMMENDATIONS

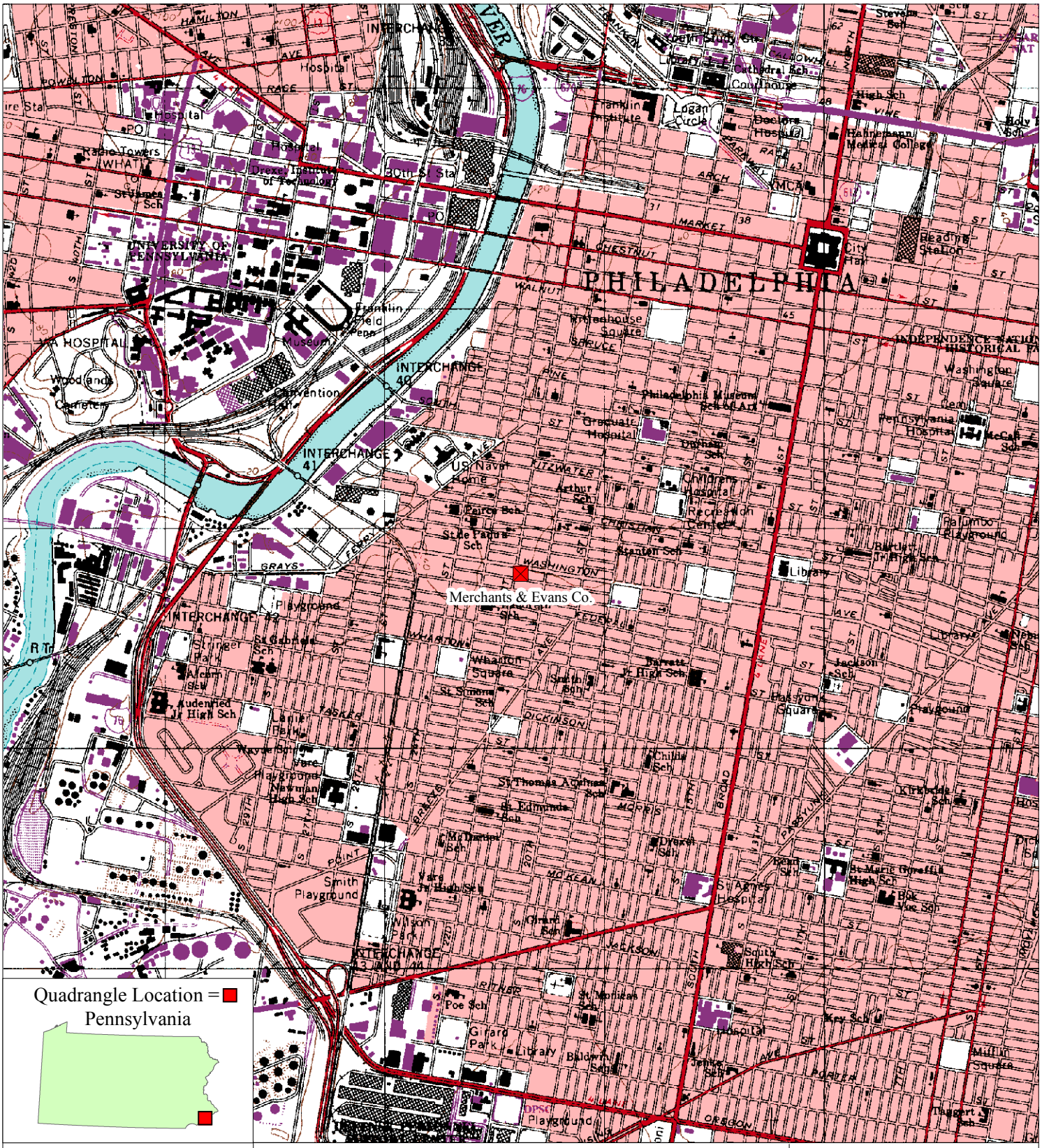
The property is located in a mixed industrial/commercial and residential area of south Philadelphia. No exposed soils were observed on the former lead smelter property. Very small yards are associated with the residential dwellings located along Carpenter Street to the north of the Merchants and Evans property. No parks, schools, or daycare facilities were identified in the immediate vicinity of the site. To determine if there is a threat to the residential population from elevated levels of lead in soils, it is recommended that soil samples be collected from nearby residential yards and analyzed for lead levels.

REFERENCES

1. Eckel, W.P., Rabinowitz, M.B., Foster, G.D. American Journal of Public Health. "Discovering Unrecognized Lead-Smelting Sites by Historical Methods". April 2001.
2. Pennsylvania Department of Health. Suspected Former Lead Smelter Sites: A Potential Risk Factor for Childhood Lead Poisoning. August 2004.
3. U.S. Environmental Protection Agency (EPA). Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12. July 14, 1994.
4. U.S. EPA. Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) database. On-Line Address: http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm
5. U.S. Census Bureau. State and County Quick Facts. Accessed On-Line on December 6, 2005. On-Line Address: quickfacts.census.gov/qfd/states/42.html.

Appendix A

Figures



0 1,000 2,000 Feet

Scale in Feet

Merchants and Evans Company
2035 Washington Avenue
Philadelphia, Pennsylvania
Eckel Site No. 311

N
W E
S

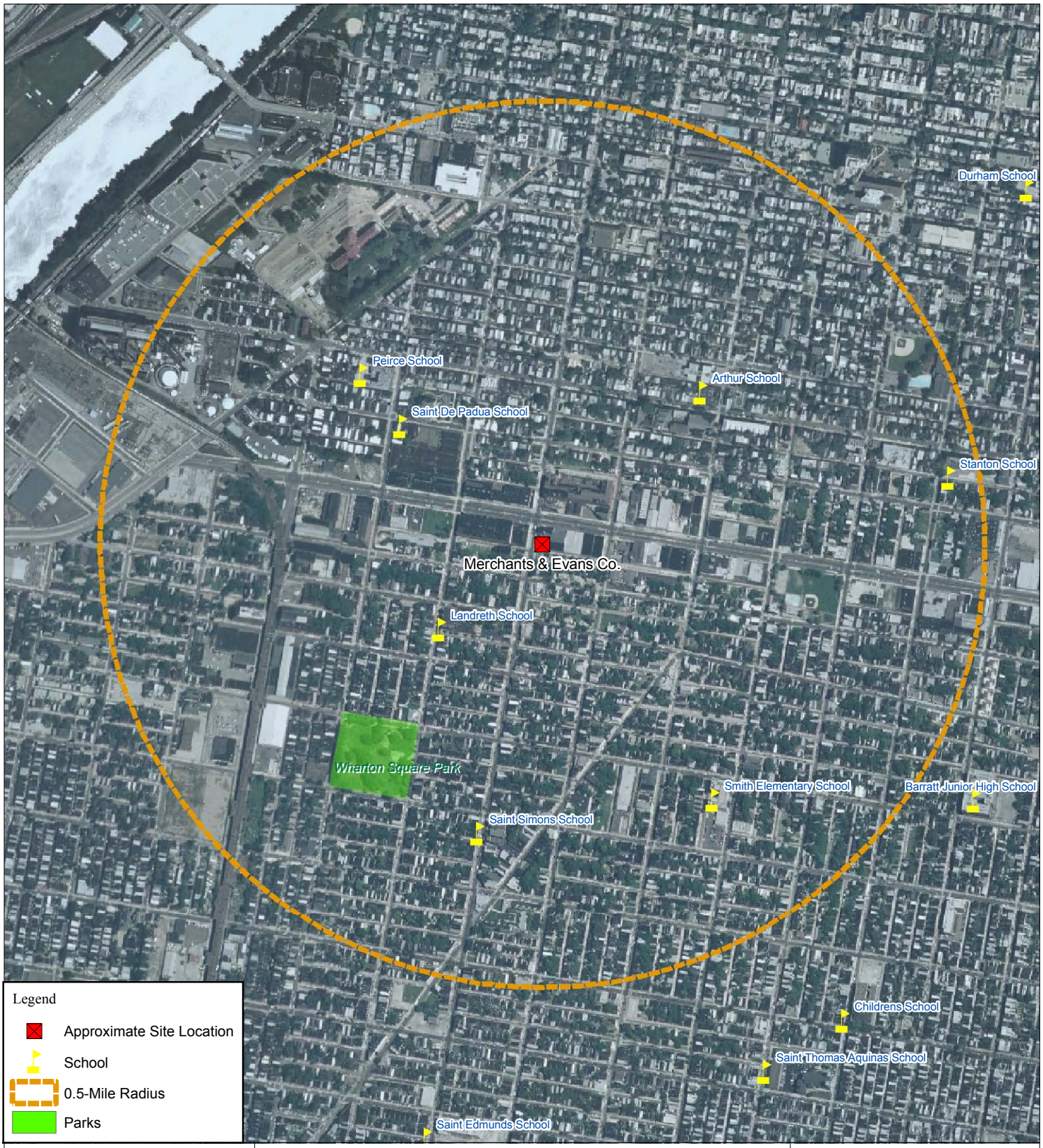
Figure 1
Site Location Map

Source: Modified from USGS, Philadelphia, Pennsylvania-New Jersey Quadrangle, 1995.

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0 400 800 Feet

Scale in Feet

Merchant & Evans Company
2035 Washington Avenue
Philadelphia, Pennsylvania
Eckel Site No. 311

N
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S

EPA

Figure 2
Aerial Photograph

Source: Modified from U.S. Department of Agriculture, Service Center Agencies, and ESRI, 2005

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0 50 100 Feet

Scale in Feet

Merchants & Evans Co.
2035 Washington Avenue
Philadelphia, Pennsylvania
Eckel Site No. 311

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EPA

Figure 3
Site Layout Map

Source: Modified from the City of Philadelphia 1996, 2000, and 2003.

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Appendix B

Photographic Documentation

Site Name: Merchants and Evans Company-Eckel Number 311
Location: 2035 Washington Avenue, Philadelphia, Pennsylvania
Prepared by: Tetra Tech EM Inc.
Photographer: [redacted]

Photograph No. 1

Photograph Date: October 13, 2005



Description: View of the front of one of the current occupants of the former lead smelter property.

Photograph No. 2

Photograph Date: October 13, 2005



Description: View of the front of property formerly occupied by the Merchants and Evans Company.

Site Name: Merchants and Evans Company-Eckel Number 311
Location: 2035 Washington Avenue, Philadelphia, Pennsylvania
Prepared by: Tetra Tech EM Inc.
Photographer: [redacted]

Photograph No. 3

Photograph Date: October 13, 2005



Description: View of south side of Washington Avenue between 20th and 21st Streets.

Photograph No. 4

Photograph Date: October 13, 2005



Description: View of south side of Washington Avenue between 20th and 21st Streets.

Site Name: Merchants and Evans Company-Eckel Number 311
Location: 2035 Washington Avenue, Philadelphia, Pennsylvania
Prepared by: Tetra Tech EM Inc.
Photographer: [redacted]

Photograph No. 5

Photograph Date: October 13, 2005



Description: View of commercial development along 21st Street.

Photograph No. 6

Photograph Date: October 13, 2005



Description: View of commercial buildings located along 21st Street.

Site Name: Merchants and Evans Company-Eckel Number 311
Location: 2035 Washington Avenue, Philadelphia, Pennsylvania

Prepared by: Tetra Tech EM Inc.
Photographer: [redacted]

Photograph No. 7

Photograph Date: October 13, 2005



Description: Residential dwellings located north of the site along Kimball Street